

# Haizhou Li

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## EDUCATION

**Boston University | M.S. in Computer Science** 08/2021-05/2023  
**Virginia Tech | B.S. in Economics & Data Analytics** 08/2017-12/2020

## PROFESSIONAL EXPERIENCE

**Bosch Automotive Components (Suzhou) Co., Ltd. – Shanghai**

03/2026-Present

Senior AI Engineer

- **Led the implementation of the intelligent cockpit in-vehicle Agent platform: completed selection and architecture design, and participated in the Bosch intelligent cockpit booth at the Beijing Auto Show on 2026/04/20.**

**Shanghai Chicmax Co., Ltd. – Shanghai**

04/2025-Present

Senior Algorithm Engineer

- **AI Agent Platform Delivery:** Owned platform selection and architecture; built POC datasets and evaluation metrics; implemented Dify-like orchestration for 8+ LLM use cases; cut idea-to-demo from 4 weeks to 2 weeks.
- **Recruiting Portrait Assessment (CV + Multimodal LLM):** Designed detection, quality control, similarity matching, and appearance scoring pipeline; defined labeling standards and test set; drove LoRA fine-tuning and DPO roadmap with offline-online feedback loop, raising core F1 to 0.80, increasing automated screening to 90%, and reducing manual review time by 50%+.
- **Voice Timbre Evaluation Framework:** Defined objective+subjective metrics, grade thresholds, and consistency checks; built test set and evaluation scripts for a reusable timbre scoring system.
- **AI Product Selection & Bundling (LLM-to-SQL Application):** Built LLM-driven recommendation and bundle optimization to accelerate launches and improve market fit.
- **AI Document Intelligence(OCR Application):** Designed chemical product filing and comparison system; extracted and structured document data to improve compliance and review efficiency.

**China Telecom Shanghai Ideal Information Industry Co., Ltd. – Shanghai**

06/2023-04/2025

Algorithm / Model Engineer

- **Customer Service Copilot (Prompting + LangChain):** Built multi-turn assistant with intent detection, tool calling, retrieval with citations, and evaluation/regression workflow.
- **PDF Intelligence & OCR Pipeline:** Built PDF parsing from 0 to 1: OCR, layout analysis, and structured extraction (text/images/tables/formulas/sections); generated renderable Markdown with traceable hierarchy.
- **Corpus Auto-Labeling & Cleaning (Kupasi Corpus Co., joint project):** Led model development and deployment; built multimodal cleaning stack (image captioning, ASR, OCR, etc.) and end-to-end QA pipeline (rules+models, sampling audits, regression, dashboards); processed ~1TB/day and reduced labor cost by 80%, supporting multiple downstream training/retrieval workflows.

## PROJECTS

**Global Knowledge Voice Translator (ASR+TTS+LLM)**

02/2025-05/2025

Full-Stack Developer

- **0-to-1 Localization Product:** Aggregated Podcast/YouTube content and produced natural Chinese audio across 100+ sources/channels; processed 5,000+ hours; reduced access barrier to one-click subscription and playback.
- **End-to-End Orchestration:** Built pipeline: ingestion -> ASR -> LLM localization -> TTS with custom voice; improved stability via alignment, glossaries/style templates, and quality gates (confidence, consistency, safety).
- **Engineering Enhancements (ASR/LLM/TTS):** Enabled multilingual and multi-domain processing (auto language ID, domain prompts, configurable rewrite styles) plus customizable voice and speaking rate.
- **WeChat Mini Program Delivery:** Delivered product features (search, playback, subscriptions, history/favorites, push reminders); integrated task queue and content distribution (planned).

**LLM Voice Assistant**

04/2024-11/2024

Full-Stack Developer

- **Project Lead (0-to-1 Mini Program):** Defined end-to-end user journey (persona selection -> dialog -> voice playback -> retention/subscription); designed 5 personas and emotion strategies to enrich engagement.
- **Personalized Dialogue & Memory (LLM + LangChain):** Built orchestration with intent detection, tool calling, long/short-term memory, and safety filters; integrated corpus + vector retrieval (embeddings, Top-K, reranking, thresholds) to maintain persona consistency and diverse responses.
- **SoVITS-TTS Integration (Multi-Emotion Speech):** Integrated SoVITS-TTS for natural speech; supported multilingual and multi-emotion output with configurable rate, pauses, timbre, and intensity.

**AI Corpus Auto-Labeling & Cleaning - Kupasi Corpus Co.**

03/2024-09/2024

**China Telecom Shanghai Ideal Information Industry Co., Ltd. | Algorithm Engineer**

- **Multimodal Corpus Auto-Labeling & Cleaning (0-to-1):** Owned R&D and production delivery; built end-to-end pipeline (parse -> recognize -> label -> QA -> archive) across text/image/audio/video; delivered capabilities including:

- Text: OCR + layout/object detection + formula recognition (LaTeX output) + text classification/taxonomy
- Image: Caption generation + NSFW detection/filtering
- Audio: ASR transcription + quality checks
- Stable at ~1TB/day; usable data pass rate improved from 40% to 80%.
- **Closed-Loop Quality Assurance:** Designed threshold learning on test sets, consistency checks, and light human review to create reproducible evaluation standards and sampling audits.

### Deep Learning NLP Research (NLP)

11/2021-11/2022

Research Assistant | Boston University | Advisor: Dokyun (DK) Lee (Boston University)

- Developed deep learning NLP models using Flair for embeddings and prediction; trained multiple LDA topic embedding models to analyze news themes.
- Used Fuzzy and BERTopic to align LDA outputs with Twitter data; achieved over 90 % relevance between public sentiment and events within 6 months.

### Full-Stack Development: Grocery Shopping Assistant

05/2022-09/2022

Project Manager & Backend Software Engineer | [https://github.com/ljy266/GroceryShoppingApp/tree/official\\_release](https://github.com/ljy266/GroceryShoppingApp/tree/official_release)

- Collaborated with a 5-member team to build an app that identifies the lowest-cost grocery store in a user's area.
- Ran recurring meetings (typically twice per week) to gather requirements and coordinate with frontend and backend engineers.
- As backend engineer, used Python to retrieve data from multiple grocery stores.
- Partnered with frontend engineers, using JavaScript on React to implement core algorithms such as price comparison and checkout.

### SKILLS

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- Languages: Mandarin (Native), English (Fluent)
- Technical: PyTorch/Transformers; Linux, Git, Docker; LLM engineering (instruction tuning/SFT, preference optimization/DPO, LoRA/QLoRA, inference & deployment), prompt & dataset engineering; Multimodal (Vision-Language fine-tuning, image-text data curation); NLP (classification, retrieval/RAG basics); Computer Vision (ArcFace/embedding, metric learning, KNN/MLP baselines); metrics-driven evaluation (F1/AUC), experiment tracking